(5) Secretary

The term "Secretary" means the Secretary of the Interior.

(6) State

The term "State" includes the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, and the Virgin Islands.

(7) Survey

The term "Survey" means the United States Geological Survey.

(Pub. L. 102–285, §3, May 18, 1992, 106 Stat. 167; Pub. L. 105–36, §3(a), Aug. 5, 1997, 111 Stat. 1107.)

AMENDMENTS

1997—Pub. L. 105–36, 3(a)(1), substituted "In sections 31a to 31h of this title:" for "As used in sections 31a to 31h of this title:" in introductory provisions.

Par. (1). Pub. L. 105-36, $\S3(a)(5)$, inserted heading.

Par. (2). Pub. L. 105–36, $\S 3(a)(2)$, (3), added par. (2). Former par. (2) redesignated (3).

Pars. (3) to (5). Pub. L. 105-36, $\S3(a)(2)$, (5), redesignated pars. (2) to (4) as (3) to (5), respectively, and inserted headings. Par. (5) redesignated (7).

Par. (6). Pub. L. 105-36, §3(a)(4), added par. (6).

Par. (7). Pub. L. 105–36, $\S3(a)(2)$, (5), redesignated par. (5) as (7) and inserted heading.

§31c. Geologic mapping program

(a) Establishment

(1) In general

There is established a national cooperative geologic mapping program between the United States Geological Survey and the State geological surveys, acting through the Association.

(2) Design, development, and administration

The cooperative geologic mapping program shall be— $\,$

- (A) designed and administered to achieve the objectives set forth in subsection (c) of this section;
- (B) developed in consultation with the advisory committee; and
 - (C) administered through the Survey.

(b) Responsibilities of the Survey

(1) Lead agency

The Survey shall be the lead Federal agency responsible for planning, developing priorities, coordinating, and managing the geologic mapping program. In carrying out this paragraph, the Secretary, acting through the Director, shall—

- (A) develop a geologic mapping program implementation plan in accordance with section 31e of this title, which plan shall be submitted to the Committee on Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate within 300 days after August 5, 1997:
- (B) appoint, with the advice and consultation of the Association, the advisory committee within 90 days after August 5, 1997, in accordance with section 31d of this title; and
- (C) within 210 days after August 5, 1997, submit a report to the Committee on Energy

and Natural Resources of the United States Senate and to the Committee on Resources of the House of Representatives identifying—

- (i) how the Survey and the Association will coordinate the development and implementation of the geologic mapping program;
- (ii) how the Survey and the Association will establish goals, mapping priorities, and target dates for implementation of the geologic mapping program; and
- (iii) how long-term staffing plans for the various components of the geologic mapping program will lead to successful implementation of the geologic mapping program.

(2) Responsibilities of the Secretary

In addition to paragraph (1), the Secretary, acting through the Director, shall be responsible for developing, as soon as practicable—

- (A) in cooperation with the Association, other Federal and State agencies, public and private sector organizations and academia, the geologic-map data base; and
- (B) maps and mapping techniques which achieve the objectives specified in subsection (c) of this section.

(c) Program objectives

The objectives of the geologic mapping program shall include—

- (1) determining the Nation's geologic framework through systematic development of geologic maps at scales appropriate to the geologic setting and the perceived applications, such maps to be contributed to the national geologic map¹ data base;
- (2) development of a complementary national geophysical-map data base, geochemical-map data base, and a geochronologic and paleontologic data base that provide value-added descriptive and interpretative information to the geologic-map data base;
- (3) application of cost-effective mapping techniques that assemble, produce, translate and disseminate geologic-map information and that render such information of greater application and benefit to the public; and
- (4) development of public awareness of the role and application of geologic-map information to the resolution of national issues of land use management.

(d) Program components

The geologic mapping program shall include the following components:

(1) Federal component

- A Federal geologic mapping component, whose objective shall be determining the geologic framework of areas determined to be vital to the economic, social, or scientific welfare of the Nation. Mapping priorities shall be based on—
 - (A) national requirements for geologicmap information in areas of multiple-issue need or areas of compelling single-issue need; and

¹So in original. Probably should be "geologic-map".

(B) national requirements for geologicmap information in areas where mapping is required to solve critical earth-science problems.

(2) Support component

A geologic mapping support component, whose objective shall be providing interdisciplinary support for the Federal Geologic Mapping Component. Representative categories of interdisciplinary support shall include-

(A) establishment of a national geologicmap data base, established pursuant to section 31f of this title;

(B) studies that lead to the implementation of cost-effective digital methods for the acquisition, compilation, analysis, cartographic production, and dissemination of geologic-map information:

(C) paleontologic investigations that provide information critical to understanding the age and depositional environment of fossil-bearing geologic-map units, which investigations shall be contributed to a national paleontologic data base;

(D) geochronologic and isotopic investigations that-

(i) provide radiometric age dates for geologic-map units; and

(ii) fingerprint the geothermometry, geobarometry, and alteration history of geologic-map units,

which investigations shall be contributed to a national geochronologic data base;

(E) geophysical investigations that assist in delineating and mapping the physical characteristics and three-dimensional distribution of geologic materials and geologic structures, which investigations shall be contributed to a national geophysical-map data base; and

(F) geochemical investigations and analytical operations that characterize the majorand minor-element composition of geologicmap units, and that lead to the recognition of stable and anomalous geochemical signatures for geologic terrains, which investigations shall be contributed to a national geochemical-map data base.

(3) State component

A State geologic mapping component, whose objective shall be determining the geologic framework of areas that the State geological surveys determine to be vital to the economic, social, or scientific welfare of individual States. Mapping priorities shall be determined by multirepresentational State panels and shall be integrated with national priorities. Federal funding for the State component shall be matched on a one-to-one basis with non-Federal funds.

(4) Education component

A geologic mapping education component— (A) the objectives of which shall be-

(i) to develop the academic programs that teach earth-science students the fundamental principles of geologic mapping and field analysis; and

(ii) to provide for broad education in geologic mapping and field analysis through support of field studies:

(B) investigations under which shall be integrated with the other mapping components of the geologic mapping program and shall respond to priorities identified for those components; and

(C) Federal funding for which shall be matched by non-Federal sources on a 1-to-1

(Pub. L. 102-285, §4, May 18, 1992, 106 Stat. 167; Pub. L. 103-437, §16(a)(1), Nov. 2, 1994, 108 Stat. 4594; Pub. L. 105-36, §3(b), Aug. 5, 1997, 111 Stat. 1108.)

AMENDMENTS

1997—Subsec. (a). Pub. L. 105–36, $\S 3(b)(1)$, added subsec. (a) and struck out heading and text of former subsec. (a). Text read as follows: "There is established in the United States Geological Survey a National Cooperative Geologic Mapping Program. The geologic mapping program shall be developed in consultation with the advisory committee and shall be designed and administered to achieve the objectives set forth in subsection (c) of this section."

Subsec. (b). Pub. L. 105–36, §3(b)(2)(A), (D), substituted "the Survey" for "USGS" in heading and realigned text margins.

Subsec. (b)(1). Pub. L. 105-36, §3(b)(2)(B)(i), (ii), inserted heading and realigned margins.

Subsec. (b)(1)(A). Pub. L. 105-36, §3(b)(2)(B)(iii), substituted "Committee on Resources" for "Committee on Natural Resources" and "August 5, 1997" for "May 18, 1992"

Subsec. (b)(1)(B). Pub. L. 105–36, §3(b)(2)(B)(iv), substituted "Association" for "State geological surveys" and "August 5, 1997" for "May 18, 1992".

Subsec. (b)(1)(C). Pub. L. 105–36, §3(b)(2)(B)(v)(I), (II), in introductory provisions, substituted "August 5, 1997" for "May 18, 1992" and "Committee on Resources" for 'Committee on Natural Resources'

Subsec. (b)(1)(C)(i). Pub. L. 105-36, \$3(b)(2)(B)(v)(III), inserted "and the Association" after "the Survey".

Subsec. (b)(1)(C)(ii). Pub. L. 105-36, §3(b)(2)(B)(v)(III), (IV), inserted "and the Association" after "the Survey" and "and" after semicolon at end.

Subsec. (b)(1)(C)(iii), (iv). Pub. L. 105-36, $\S 3(b)(2)(B)(v)(V)$, substituted period for "; and" at end of cl. (iii) and struck out cl. (iv) which read as follows: "the degree to which geologic mapping activities traditionally funded by the Survey, including the use of commercially available aerial photography, geodesy, professional land surveying, photogrammetric mapping, cartography, photographic processing, and related services, can be contracted to professional private map-

Subsec. (b)(2). Pub. L. 105-36, §3(b)(2)(C)(i), inserted heading.

Subsec. (b)(2)(A). Pub. L. 105–36, §3(b)(2)(C)(ii), substituted "Association" for "State geological surveys" Subsec. (c)(2). Pub. L. 105–36, §3(b)(3)(A), substituted "interpretative information" for "interpretive information"

Subsec. (c)(4). Pub. L. 105-36, §3(b)(3)(B), substituted "public awareness of" for "public awareness for".

Subsec. (d)(1). Pub. L. 105–36, §3(b)(4)(A), inserted

Subsec. (d)(2). Pub. L. 105-36, §3(b)(4)(B)(i), inserted heading.

Subsec. (d)(2)(D). Pub. L. 105-36, §3(b)(4)(B)(ii), added subpar. (D) and struck out former subpar. (D) which read as follows: "geochronologic and isotopic investigations that (i) provide radiometric age dates for geologic-map units and (ii) fingerprint the geothermometry, geobarometry, and alteration history of geologic-map units, which investigations shall be contributed to a national geochronologic data base;"

Subsec. (d)(3). Pub. L. 105-36, §3(b)(4)(C), inserted

Subsec. (d)(4). Pub. L. 105-36. §3(b)(4)(D). added par. (4) and struck out former par. (4) which read as follows: "A geologic mapping education component, whose objective shall be—

"(A) to develop the academic programs that teach earth-science students the fundamental principles of geologic mapping and field analysis; and

"(B) to provide for broad education in geologic mapping and field analysis through support of field teaching institutes.

Investigations conducted under the geologic mapping education component shall be integrated with the other mapping components of the geologic mapping program, and shall respond to priorities identified for those components."

1994—Subsec. (b)(1)(A), (C). Pub. L. 103–437 substituted "Natural Resources" for "Interior and Insular Affairs" before "of the House".

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 31b, 31f of this title.

§31d. Advisory committee

(a) Establishment

(1) In general

There shall be established a 10-member geologic mapping advisory committee to advise the Director on planning and implementation of the geologic mapping program.

(2) Members ex officio

Federal agency members shall include the Administrator of the Environmental Protection Agency or a designee, the Secretary of Energy or a designee, the Secretary of Agriculture or a designee, and the Assistant to the President for Science and Technology or a designee

(3) Appointed members

Not later than 90 days after August 5, 1997, in consultation with the Association, the Secretary shall appoint to the advisory committee two representatives from the Survey (including the Chief Geologist, as Chairman), two representatives from the State geological surveys, one representative from academia, and one representative from the private sector.

(b) Duties

The advisory committee shall—

- (1) review and critique the draft implementation plan prepared by the Director pursuant to section 31e of this title;
- (2) review the scientific progress of the geologic mapping program; and
- (3) submit an annual report to the Secretary that evaluates the progress of the Federal, State, and university mapping activities and evaluates the progress made toward fulfilling the purposes of sections 31a to 31h of this title.

(Pub. L. 102–285, §5, May 18, 1992, 106 Stat. 169; Pub. L. 105–36, §3(c), Aug. 5, 1997, 111 Stat. 1110.)

AMENDMENTS

1997—Subsec. (a). Pub. L. 105–36, §3(c)(1), added subsec. (a) and struck out heading and text of former subsec. (a). Text read as follows: "There shall be established a sixteen member geologic mapping advisory committee to advise the Director on planning and implementation of the geologic mapping program. The President shall appoint one representative each from the Environmental Protection Agency, the Department of Energy, the Department of Agriculture, and the Office of Science and Technology Policy. Within 90 days

and with the advice and consultation of the State Geological Surveys, the Secretary shall appoint to the advisory committee 2 representatives from the Survey (including the Chief Geologist, as Chairman), 4 representatives from the State geological surveys, 3 representatives from academia, and 3 representatives from the private sector."

Subsec. (b)(3). Pub. L. 105-36, §3(c)(2), substituted "Federal, State, and university mapping activities" for "Federal and State mapping activities".

TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by Congress, its duration is otherwise provided by law, see section 14 of Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 31b, 31c of this title.

§ 31e. Geologic mapping program implementation plan

The Secretary, acting through the Director, shall, with the advice and review of the advisory committee, prepare an implementation plan for the geologic mapping program. The plan shall identify the overall management structure and operation of the geologic mapping program and shall provide for—

- (1) the role of the Survey in its capacity as overall management lead, including the responsibility for developing the national cooperative geologic mapping program that meets Federal needs while simultaneously fostering State needs;
- (2) the responsibilities accruing to the State geological surveys, with particular emphasis on mechanisms that incorporate their needs, missions, capabilities, and requirements into the nationwide geologic mapping program;
- (3) mechanisms for identifying short- and long-term priorities for each component of the geologic mapping program, including—
- (A) for the Federal geologic mapping component, a priority-setting mechanism that responds both to (i) Federal mission requirements for geologic-map information, and (ii) critical scientific problems that require geologic-map control for their resolution;
- (B) for the geologic mapping support component, a strong interdisciplinary research program plan in isotopic and paleontologic geochronology, geophysical mapping, and process studies to provide data to and interpret results from geologic mapping;
- (C) for the State geologic mapping component, a priority-setting mechanism that responds to—
 - (i) specific intrastate needs for geologicmap information; and
- (ii) interstate needs shared by adjacent entities that have common requirements; and
- (D) for the geologic mapping education component, a priority-setting mechanism